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A PRELIMINARY NOTE ON *ILLEX ILLECEBROSUS* LARVAE HATCHED FROM EGGS SPAWNED IN CAPTIVITY

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Precocious maturation of female *Illex illecebrosus* held under conditions previously described in the 15 meter diameter pool of the Aquatron Laboratory at Dalhousie (O'Dor *et al.*, 1977) resulted in production of six egg masses during September and October, 1978. These were produced by four females with spermatophores implanted in their mantle cavities as described by Hamabe *et al.* (1974) and consisted of tenuous spheres of nearly neutrally bouyant jelly ranging from about 40 to 120 cm in diameter. The masses were neither attached to the substrate nor deposited in buckets provided, but were free to drift in the slightest current. They contained on the order of 10^5 eggs (oblate spheroids, 0.6 by 0.9 mm) spaced at distances of about 1 cm in an apparently uniform jelly. Although they fragmented when handled, some fragments were transferred to smaller containers where embryonic development was observed.

The larvae which hatched after 6 to 8 days at 13°C had mantle lengths of about 1.1 mm and a small internal yolk sac. Their appearance after eight days of development is shown in Figs. 1 and 2. At this stage they had a mantle length of 1.25 mm, two pairs of dorsal arms (I, II) and a developing proboscis. Their size, chromatophore pattern, arm and proboscis de-

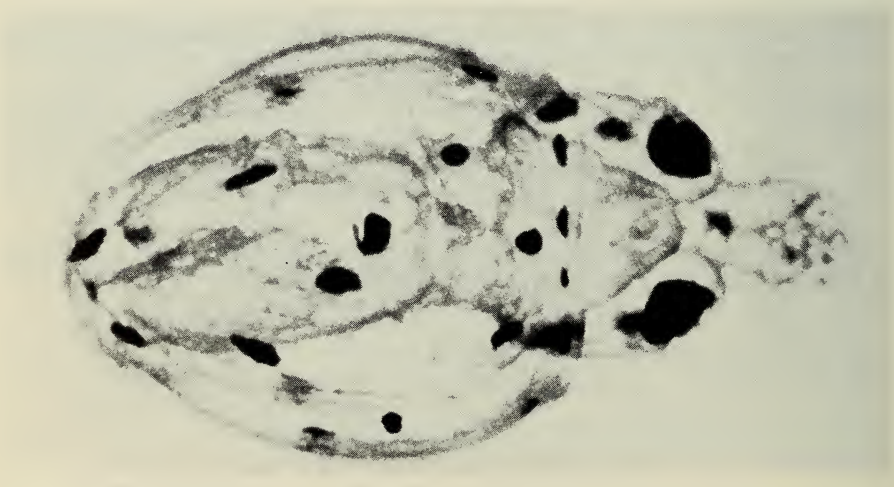

Fig. 1. Photograph of a living *Illex illecebrosus* larva 7 days after hatching. Mantle length is 1.25 mm.

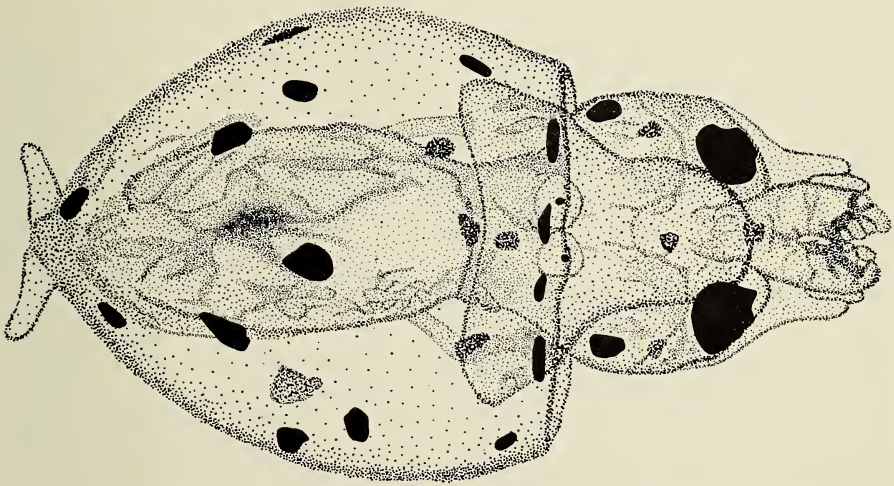

Fig. 2. Ventral view of an *Illex illecebrosus* larva from a specimen preserved 8 days after hatching. Mantle length is 1.25 mm.

velopment appear from our preliminary examination to be consistent with the developmental sequence of Rhynchoteuthion type "C" proposed by Roper and Lu (1979) and with the larvae and juveniles characterized as *Illex illecebrosus* by Vecchione (1979). The earliest larvae described by these authors are more advanced than our specimens and probably are at least several days older. All of the specimens they have illustrated have three more chromatophores on the head, one ventral and two dorsal; however these are near the base of the head in a region of rapid growth and are likely the result of further development.

These observations confirm the link between Rhynchoteuthion type C and *Illex illecebrosus*, but further data are still required to distinguish *I. illecebrosus* from *I. oxygonius*.

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